## CLAIMS

- 1. An optical element comprising a molded body containing a resin having an alicyclic structure, said molded body having a hologram surface diffusion pattern formed on at least one surface thereof.
- 2. The optical element according to claim 1 wherein the hologram surface diffusion pattern is composed of a fine asperity, an arithmetic average roughness Ra of the asperity is 0.5 to 10  $\mu$ m, and a ratio of the arithmetic average roughness Ra to a mean spacing Sm (Ra/Sm) of the asperity is 0.01 to 0.9.
- 15 3. The optical element according to claim 1 or 2 wherein the optical element has a single layer structure.
- The optical element according to any one of claims 1
  to 3 wherein the optical element is a light diffusion plate
   or a light diffusion sheet.
  - 5. The optical element according to any one of claims 1 to 4 wherein said surface has a rectangular planar shape and a length of its diagonal is 200 mm or more.

6 The optical element according to any one of claims 1 to 5 wherein said element is obtained by injection molding.

- 7. A display device comprising the optical element 30 according to any one of claims 1 to 6.
  - 8. A method for producing the optical element according to any one of claims 1 to 6 comprising:

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a step of preparing a stamper having a fine asperity formed on its surface, wherein an arithmetic average roughness Ra of the asperity is 0.5 to 10  $\mu m$ , and a ratio of the arithmetic average roughness Ra to a mean spacing Sm (Ra/Sm) of the asperity is 0.01 to 0.9,

a step of providing with a mould where said stamper has been incorporated, and

a step of injection-molding a resin having an alicyclic structure using said mould, to obtain a molded body wherein said fine asperity on the surface of said stamper is transcribed on a surface of said molded body.

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